after a few days. In colour their down is greyish above, white below, with the head and throat speckled in brown spots and blotches.

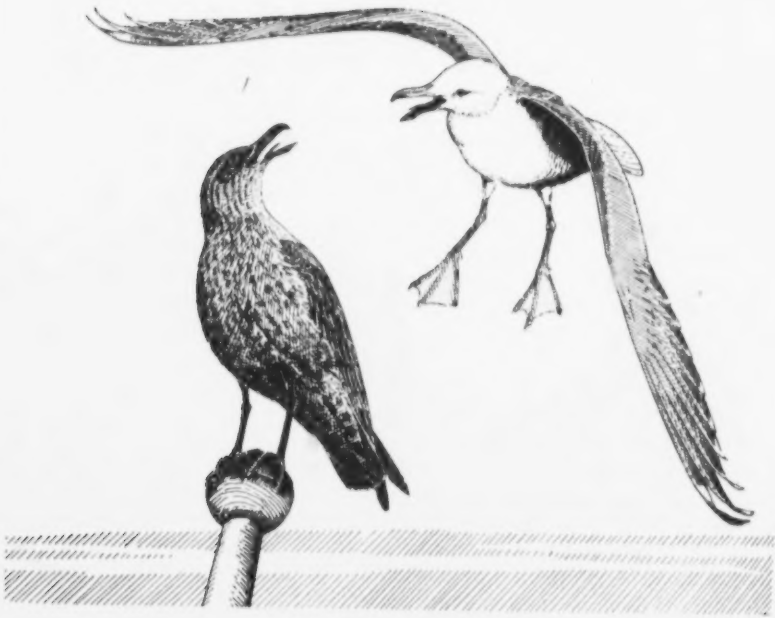
In the fall the glaucous gull migrates down both Atlantic and Pacific coasts with a few individuals straggling as far south as California on the western side of the continent. In the winter and spring it is plentiful in certain areas on the Queen Charlotte Islands, and though records south to Victoria are not uncommon, all of the specimens recorded by Munro and Cowan in their Review of the Bird Fauna of British Columbia were birds in immature plumage.

Like many of the larger gulls, this species is a voracious and versatile feeder. It takes fish of all kinds when such are available and also feeds on carrion, crabs, starfish, molluscs, and whatever the sea may provide.

GLAUCOUS-WINGED GULL

The glaucous-winged gull is a year-round resident all along the British Columbia coast. It invades cities and settlements scrounging for food at windows, in garbage-dumps, and in the parks. On the salmon-spawning streams it wanders for considerable distances inland, but almost invariably returns to the sea to spend the night. Where small islands are available as night roosts, this bird congregates in the evening, and from these places it may be seen flighting out at dawn in search of food, returning over the same route after sunset.

The glaucous-wing is a large gull measuring up to 27 inches long; in full plumage it is white on the head, tail, and underparts and pale grey on the back and upper part of the wings. The wing-tips are spotted in grey but are never black, and this immediately separates the species from others with which it may be confused, apart, of course, from the glaucous gull, which also has no black on the wing-tips. The bill of the glaucous-winged gull is yellow with a red spot on the lower mandible, and the feet are flesh coloured. First-year immature birds are a greyish-brown colour throughout and appear similar, at a distance, to first-year western gulls. However, they are lighter in colour than that species and the plumage on the wing is not dark toward the tip. In the second



Glaucous-winged gull.
(Juvenile.) (Adult.)

year the plumage is paler and much of the brownish hue has disappeared. The best field characteristic for the identification of the glaucous-winged gull in any plumage is the absence of dark tips to the wings.

Nesting occurs on rocky islets all along the coast, where by mid-July downy young and eggs may be found. Two to four large heavily blotched olive to brown-coloured eggs make up the usual clutch, but occasionally eggs with a greenish ground colour occur. The young remain on the island, hiding in whatever cover is available at the approach of an intruder. Young gulls unprotected by parent birds are usually attacked by other adult birds and are often

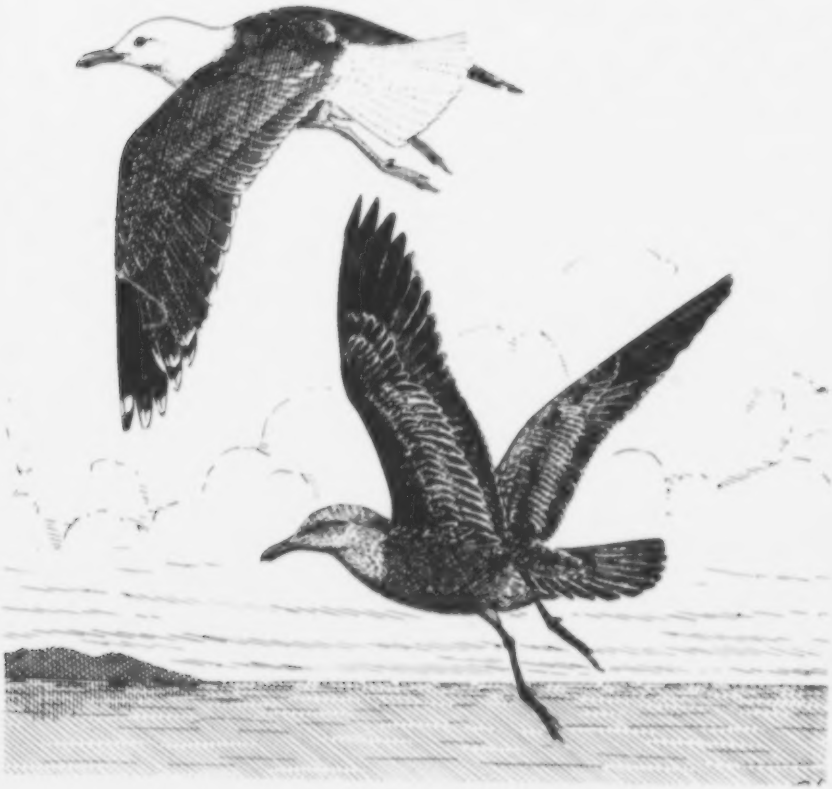
destroyed, but apparently not eaten as the carcasses may be found lying about on the colony.

The glaucous-winged gull is a versatile feeder, and when the sea offers shoaling minnows such as herring, pilchard, and sand-lance there is a great " to do " as the gulls and other sea-birds congregate for a feast. Carrion washed up by the sea, starfish, clams, crabs, floating garbage are all apparently relished. When food is scarce, the glaucous-wing often parasitizes diving birds such as cormorants, grebes, and murres, neatly snatching the prey from their bills as they surface. In the spring of the year when the young of other water-birds such as ducks are about, the glaucous-winged gull has been known to devour them as well, and on several occasions I've observed this gull kill and eat horned grebes and crippled ducks.

In the Victoria area, at Seattle, and farther south, a large number of glaucous-winged gulls have been banded with various combinations of coloured leg-rings. In this effort to study something of the movements and life-history of this gull it is necessary to obtain returns, and all persons seeing such birds are urged to record the colour combinations and notify the Provincial Museum. A gull found with a numbered band on the leg should be reported to the Canadian Wildlife Service at Ottawa or directly to the United States Wildlife Service at Washington, D.C.

WESTERN GULL

The western gull winters regularly in small numbers in waters surrounding the Gulf Islands. Like the glaucous-winged gull, it is large, measuring 24 to 27 inches in total length. The feet are pink and the bill is yellow with a red spot on the lower mandible. The diagnostic features in adult plumage are the dark-grey mantle and black primaries lacking in or with a restricted number of apical windows (white spots) at the tips. The black wing-tip separates this species from the glaucous and glaucous-winged gulls in all plumages. It is most likely to be confused with the smaller California gull, which, however, has greenish rather than pink-coloured legs and which has a small bill. As with other gulls, in first- and second-year plumages the western is more difficult to identify.



Western gull.

(Adult.) (Juvenile.)

First-year plumage is dark greyish-brown throughout except for blackish wing-tips, which readily distinguishes it from first-year glaucous and glaucous-winged gulls. From the California gull, the heavier, darker bill and larger size are the diagnostic characteristics, but young herring gulls are almost identical in appearance to

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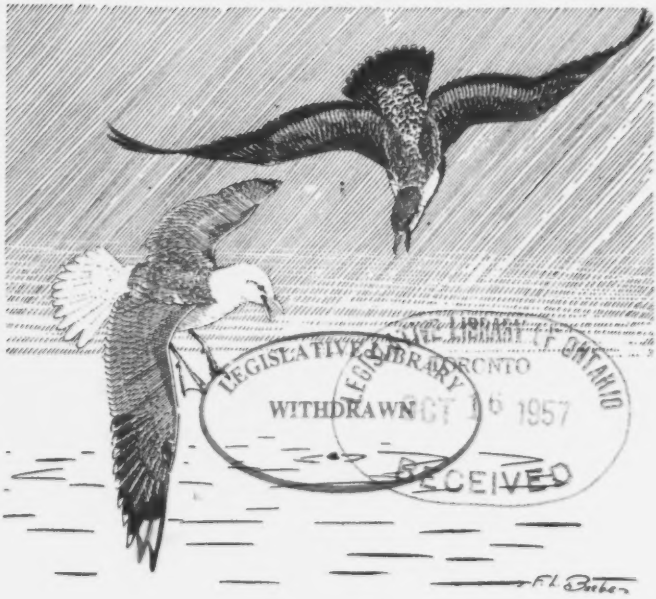

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THE BIRDS
OF BRITISH COLUMBIA

(5) Gulls, Terns, Jaegers, and Skua

By C. J. Guiguet
Illustrations by Frank L. Beebe

VICTORIA, B.C. JUNE, 1957

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1957

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Gulls, Terns, Jaegers, and Skua

INTRODUCTION

This handbook, like others of the bird series, is not designed for the advanced student of ornithology but for the beginner and amateur bird-watcher. It includes only those species known to occur within the political boundaries of British Columbia, thus facilitating the process of elimination in identifying any gull, tern, or jaeger that the amateur may see here.

There are thirteen species of gulls known in this Province, and many are difficult to identify in the field because each species undergoes many plumage changes. Usually it takes three years for a gull to attain sexual maturity and full plumage; first-, second-, and third-year plumages differ quite markedly. The beginner must become familiar with those three plumages and the intermediate stages in order to identify correctly the gull he sees.

In addition a good deal of individual variation in plumage occurs, particularly in late first- and second-year plumages, due to a differential in time and rate of moult in individual birds. Thus, for example, in a population of glaucous-winged gulls approaching the end of their first year of life, some individuals may be completely dark grey, others in full second-year plumage, while many individuals may be in various stages between these two plumages. This may not present a problem to the experienced observer, but it is confusing to the novice.

Moreover, many gulls have distinct winter and summer plumages which completely alter the appearance of the bird. The adult Bonaparte gull, for example, which is a black-headed bird in full summer plumage, has a white head with a black spot in winter. Again to the inexperienced, these changes, and the intermediate stages between, lead to confusion. In addition, many species of gulls closely resemble one another in the adult stage as well as in the juvenile stages, which makes it difficult even for

the experienced student to positively identify some of these in the field.

As a group, however, gulls need little introduction. They are long-winged swimming birds with three toes webbed, most of them with the large part of the plumage white in the adult stage. The mantle, which includes the plumage of the back and top side of the wings except the primaries, is usually a shade of grey.

Terns are similar to gulls but are smaller in size and are more delicately built. They differ also in having a more slender bill, more slender wings, and a deeply forked tail.

The jaegers and skuas are long-winged hook-billed predaceous sea-birds with a gull-like texture to the plumage. Of the jaegers, two have distinct colour phases in the adult plumage.

On the following pages each species is represented by an illustration and by a short account giving some of the habits, ranges, occurrence, and other details of life-history. Though this small handbook is limited in scope, we hope it will be useful to the teacher and bird-watcher alike.

Some of the material here presented has previously appeared in the magazine section of the Victoria Daily Colonist. We are indebted to the publisher, Mr. Seth R. Halton, for certain of the plates used as illustrations.

GLAUCOUS GULL

The glaucous gull is the largest of the gulls found on the Pacific coast of British Columbia, and, though rare, it is one of the easiest to identify. In adult plumage this bird has white wing-tips, white underparts, white head, and white tail. The mantle is a very pale pearl grey, so light as to appear white at a distance. The feet are flesh coloured; the bill is yellow with a red spot on the lower mandible. Birds in first-year plumage are a pale cream colour with some clouding of pale brown, but with very white wing-tips. Second-year plumage is lighter still, the bird appearing almost white.

This species is a northern dweller and occurs only in small numbers along the British Columbia coast. It is usually recorded

Glaucous gull.

in migration and during the winter months and is more common in northern coastal areas. It is rarely seen in the interior.

The glaucous gull has a circumpolar breeding range which includes practically all of the Arctic coast and islands. It lays two or three large olive to brownish-coloured eggs which are spotted and blotched in darker browns. Eggs are present in the nests from May to early July, and after an incubation period of about three weeks the downy chicks are hatched. The young leave the nest

first-year birds of this species. Young westerns are usually darker. In second-year plumage the head and underparts are whitish, and the contrasting dark mantle and black primaries (not just the tips) facilitate identification.

Coastal British Columbia is at the northern extremity of the western gulls' range, and though Bent (1921) cites the breeding range as " the Pacific coast of North America from British Columbia and Washington (various islands off the coast) southward along the coasts of Oregon, California and lower California " we as yet have no breeding records for this species in the Province.

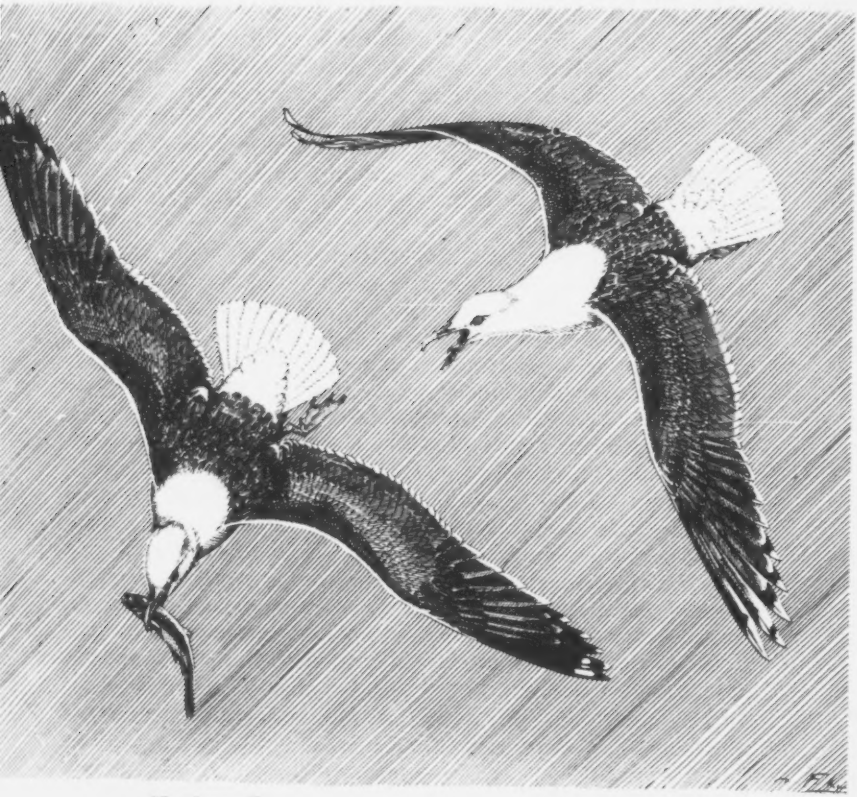
The nest and eggs are said to be indistinguishable from those of other gulls of similar size.

Of the feeding habits, W. E. Bryant, quoted in Bent, writes: " The (western) gulls are indiscriminate feeders; in addition to their usual articles of diet, they subsist largely upon eggs during the summer. They do not eat the eggs of their own species, nor do they trouble the cormorants after the murres have commenced laying. Sea-urchins, crabs, young murres and rabbits, and fish stolen from the cormorants' nests are eaten. Not being quick enough to swoop upon the rabbits they catch them by patient watching at their burrows, and will patiently try for 15 minutes to swallow a squealing young rabbit, and finally fly away with the hind feet protruding. The dead bodies of murres are also eaten; they detach pieces of flesh by backing away and dragging the body, meanwhile shaking their heads, till a piece breaks off."

Western gulls appear in southern coastal waters in October and remain usually until March and April, when they move southwards. On the whole, however, this is a sedentary species and over most of its range is non-migratory. The northernmost record for the species in British Columbia was taken at Comox on Vancouver Island.

HERRING GULL

The herring gull is a large bird measuring from 23 to 26 inches in total length. In adult plumage it is easily identified in that it is the only large gull occurring in British Columbia which has black wing-tips, flesh-coloured feet, and a pearly-grey mantle. First- and



Herring gull. Thayer gull.

second-year plumage are more difficult to separate as they are similar to those of the western and California gulls. The larger size of the herring gull is the first good characteristic, but when other species are not present it is sometimes difficult to evaluate. Though the brown first-year plumage is not so grey as that of the western gull, this fact is often useless when the other species is not in the

same vicinity for comparative purposes. However, first-year herring gulls are usually very light coloured about the face, while the westerns are dark. In second-year plumage the herring gull is paler in colour and similar in appearance to the second-year California gull, but the size differential here is sufficient to separate the two. the California gull being noticeably smaller. The western gull in second year has a definite saddle-backed appearance as the dark mantle begins to show; this separates it immediately from the species under discussion.

Herring gulls occur plentifully throughout the interior lakes of the Province during the summer months and are present on lakes in the southern parts throughout the year. The species is uncommon on the coast during the summer but is often locally abundant during the fall and winter months. So far we have no records of herring gulls nesting on the coast, but breeding records are plentiful on central and northern lakes of the interior. We have followed up several reports of coastal nestings on the Queen Charlotte Islands and elsewhere and have invariably turned up only glaucous-winged gulls.

In breeding behaviour the herring gulls are much like others described previously. Small islets in larger lakes are utilized, and though nest and eggs vary greatly they are somewhat similar to those of the glaucous-winged gulls; nests, eggs, and young are present on the rookeries by the third week in June, later in northern areas. Occasionally the herring gull nests in trees, but as a rule the nests are situated on the ground.

Like most gulls, this species is a versatile feeder and takes whatever nature offers, such as grubs turned up by the plough, fish, crabs, clams, carrion, and whatever prey it chances upon, including the eggs and young of other species of birds. It is known to attack and kill young of its own kind on the rookeries, a habit shared with the glaucous-winged gull.

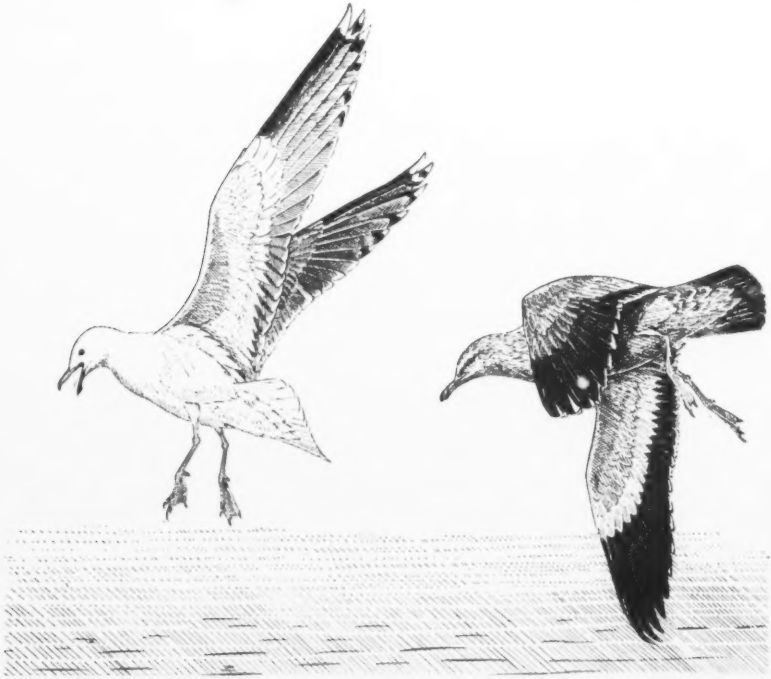
Three subspecies of herring gulls are known to occur in British Columbia, but the field differences are so slight that the lay observer need not concern himself, especially as one subspecies (*Larus argentatus vegæ*, the Vega gull) is represented by one record only for the Province. *L. argentatus smithsonianus*, the bird

depicted in the illustration with very dark wing-tips, is the herring gull most often seen. The third subspecies is the Thayer gull (*L. argentatus thayeri*), which is considered to be a full species by some students. The most apparent field differences are said to be the amount of white on the black wing-tips, but as this is variable a good deal of confusion arises. Mr. Beebe has illustrated a typical adult Thayer gull on the right in the illustration.

CALIFORNIA GULL

The California gull is a medium-sized bird measuring 20 to 23 inches in total length. In adult plumage it resembles a small herring gull in having a white head, white underparts and tail, dark wing-tips, a greyish mantle, and a red spot on the lower mandible. It differs in being smaller in size, and in having greenish or yellow rather than flesh-coloured feet and legs. In addition, there is a black spot with the red on the lower mandible.

From the ring-billed gull it is distinguished by slightly larger size and by the presence of red on the lower mandible. Immature birds are far more difficult to identify, and confusion invariably arises in distinguishing first-year California from first-year herring and ring-billed gulls. Young California gulls are a paler brownish-grey colour than are the herring gulls of the same age, while first-year ring-bills are paler still than comparable plumage in the California. However, both the herring gull and the ring-billed have clear-cut black bands on their tails in this plumage; in the California gull this band is indistinct. In second-year plumage the brown of the body plumage is being replaced by white and the bird has a speckled appearance; size here is the best distinguishing feature, and an indication of the black tail-band remains longer on the California than on the other species with which it may be confused. Bill, feet, and legs are often useless for identification at this stage, the former often showing a dark ring, the feet varying from flesh colour to yellowish. As with other species in this complex of black wing tipped gulls, moult alters the appearance of individuals. Very often some primaries are missing or only partially grown, which alters the amount of black apparent on the wing. At a distance these missing and partially grown primaries mislead the



California gull.

(Adult.) (Juvenile.)

observer in that individuals of the same species appear to have less black than has the full-plumaged bird.

In summary then, for adult plumage, a dark wing tipped gull, white of head, underparts and tail with a pearl-grey mantle, but smaller than the herring gull and larger than the ring-billed, is likely to be a California gull. When seen at closer range, yellowish-coloured feet separate it immediately from the herring gull, and the red and black spot on the lower mandible separates it from the ring-billed, which has black on the upper and lower mandibles.

The California gull nests on the prairie lakes and sloughs in western North America from California and Wyoming north to Great Slave Lake and east into western Saskatchewan. Bent

(1921) includes central British Columbia in the breeding range of this species, but the authoritative work of Munro and Cowan (1947) lists this bird only as a transient, with no authentic breeding records in the Province. The California gull occurs in the interior of British Columbia in August and September and is plentiful along southern coast-lines until October and November. A few individuals winter on the southern coast of British Columbia, but the main wintering-grounds are south along the Pacific coast of the United States to Mexico.

Feeding behaviour and nesting habits of the California gull are similar to those of other large gulls previously described. Nests are built on the ground in large colonies close to water; three eggs make up a normal clutch and only one brood is raised per year.

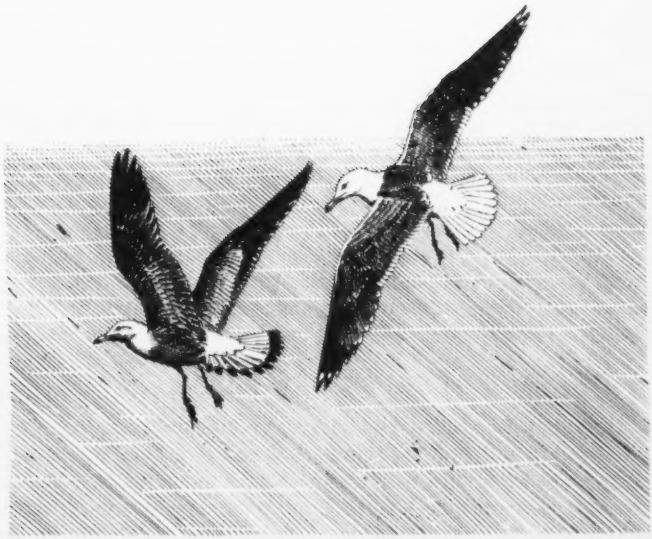
RING-BILLED GULL

The adult ring-billed gull closely resembles the herring gull, the California gull, and the short-billed gull in general appearance, in that it is a white bird with a greyish mantle and black wing-tips. The chief distinguishing feature in adult plumage is a dark spot on both upper and lower mandibles, which gives the impression of a distinct dark ring around the bill. At a distance, however, this ring is difficult to see. To the practised eye the size of the bird is the most useful criterion.

The ring-bill measures only about 18½ to 19 inches long, thus it is much smaller than the herring gull, and in addition has yellow rather than flesh-coloured legs and feet. It is smaller, too, than the California, but the difference is not so apparent. As both California and ring-billed gulls have yellowish-coloured feet and legs, the ring on the bill and absence of a red bill spot is the only sure criterion in identifying the latter.

The short-billed gull, appreciably smaller than the ring-billed and with no mark on the bill, is easily separated from most gulls of herring-gull type colouration.

Actually the ring-billed and the California gulls are the species most likely to be confused, and in first- and second-year plumages the difficulties increase as they do with other gulls of this group. Taverner (1934) has pointed out that the first-year ring-billed is



Ring-billed gull.

(Juvenile.) (Adult.)

the lightest coloured of all the larger gulls, showing indications of a blue mantle even in the first year. "The underparts are nearly pure white peppered with sparse, fine dark bands. This and the sharp terminal tail bar (see bird on left in illustration) will distinguish it from the herring gull and usually from the California." In this species the distinct tail-bar persists into the second year, and the bill, dark in the first autumn, begins to show indications of a ring, which, coupled with the light colour throughout, is usually sufficient to identify a bird approaching maturity.

The ring-billed gull occurs across the continent, breeding in suitable habitat over most of eastern and central Canada north to Great Slave Lake. In British Columbia this is a comparatively rare bird, seen occasionally in fall migration through the interior, less frequently in the spring. On the coast it has been recorded on

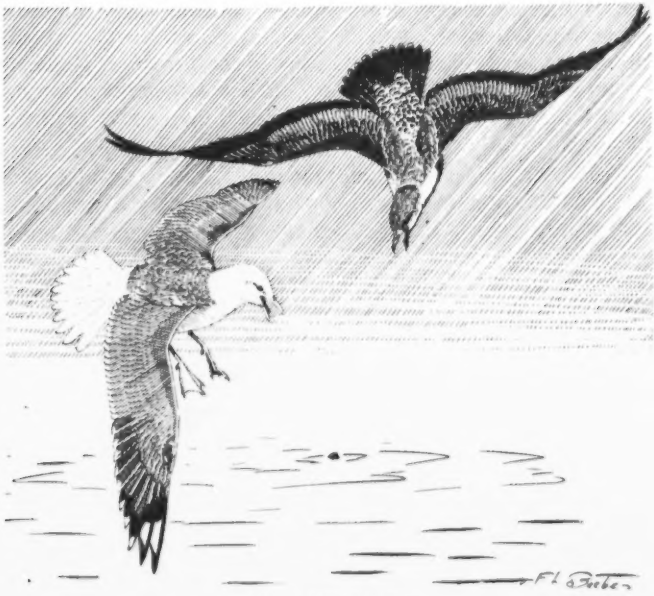
three or four occasions in the autumn, and one winter specimen was taken in December at South Vancouver. So far the ring-billed gull has not been recorded as nesting in the Province, although it may do so in the northern interior. It is a colonial breeder, nesting on the ground in a variety of habitats, be it rocky or marshy shore-line.

Nesting occurs in May and June, and the nest and eggs are much like those of other gulls previously described. In feeding habit, too, this gull is much like many others, eating whatever nature and good fortune provides. On the prairies it is noted for the habit of following the plough and eating the insects and insect larvæ so uncovered. It is known to eat mice and other small rodents and to take flying insects, such as grasshoppers, on the wing. Fish, carrion, garbage, and the eggs of other shore-nesting birds are also eaten.

The ring-billed gull migrates southward in the fall to winter "from Massachusetts (irregularly) southward along the Atlantic coast to Florida and Cuba; and along the coast of Mexico; west to the Pacific coasts of Mexico and the United States southward to Oaxaca and northward to British Columbia; in the interior north to Colorado, more rarely Idaho, Montana and the Great Lakes" (Bent, 1921).

SHORT-BILLED GULL

The short-billed gull is a small gull of herring-gull coloration and form; it measures only about 17½ inches long. In adult plumage the head neck, underparts, wings, and tail are white; the mantle is a bluish-grey and the wing-tips are black with white apical windows. The bill is yellow, unmarked by red or black spots, and the feet and legs are yellowish. Smaller size usually suffices to separate it from the California and ring-billed gulls, and herring and Thayer gulls are so much larger that no problem exists. The short-billed gull and the Pacific kittiwake (16 inches long) are almost the same size, and of similar general coloration in adult plumage. The kittiwake, however, has practically no hind toe (rudimentary), no white apical windows in the black wing-tips, and the legs and feet are dark.



Short-billed gull.

(Adult.) (Juvenile.)

In immature plumage the short-bill is evenly dark throughout, including the tail. In its second year it is clouded and light in colour; the tail is white with a prominent subterminal black band; the bill is dark greenish and unmarked by spots or ring. In these plumages, despite size differences, it is often difficult to separate the short-billed from the ring-billed and California gulls in the field. Immature plumage in the Pacific kittiwake is largely white and entirely different from that of the ring-billed gull, hence no problem in identification exists there.

The short-billed gull is a western bird confined to the west coast and north-western interior of the continent. It breeds around fresh-water lakes in northern Saskatchewan, Alberta, and British

Columbia, as far south as Harrison Lake in this Province. The bulk of the nesting population, however, is confined to the northern areas. During fall migration in late August and September the movement is largely coastwise, birds from the northern interior migrating westwards across the mountains and south along the Pacific shore-lines. The species winters from the southern portions of the Straits of Georgia and Juan de Fuca south to southern California; birds are usually seen in these areas throughout the months of October to April, when spring migration begins. The spring migratory movement lasts until May, the majority of birds nesting in June and July.

Nests are situated on the ground or in low flat-topped conifers, and two or three drab brownish-coloured eggs constitute a clutch. The eggs are marked with dark splotches and spots much like those of the other species of gulls.

On the wintering-grounds the short-billed gull forages with its larger relatives around sewer-mouths, garbage-dumps, and harbours, but feeds largely upon small fishes when such are available. Around the fresh-water lakes where it nests, minnows, sticklebacks, aquatic insects, and the like make up a large part of the diet. Like other gulls, it is a versatile feeder, taking advantage of whatever is provided in the way of food, but this species lacks the aggressiveness of its larger counterparts.

FRANKLIN GULL

The Franklin gull measures about 14 inches in total length and closely resembles the well-known Bonaparte gull. It differs in having a darker mantle and much less white on the wings. In the Franklin gull the bill and feet vary from black to maroon, depending upon age and season, whereas the bill of the Bonaparte is always black. In adult summer plumage both species have the distinctive black head, and sometimes a rosy suffusion of colour is present on the white underparts. This rosy colour fades out quickly upon death of the bird, and upon exposure to sunlight, and is not seen in either species during the fall migration, when they are most likely to be observed in this Province. In the immature plumage of greyish-brown colour, the best distinguishing feature is the lack

Franklin gull.

(Adult.) (Juvenile.)

of white in the wing of the Franklin gull as opposed to the large amount in the wing of the Bonaparte. This is true also of both species in winter plumage, in which the black head feathers are replaced with white.

The Franklin gull is noted for its habit of following closely behind the plough, eating the grubs and worms thus uncovered. It is a popular bird with farmers all across the prairie provinces, where it is known locally as the " prairie pigeon " or " prairie dove." Nesting as it does in the heart of the agricultural belt and feeding largely upon insects such as grasshoppers, which it takes on the wing as well as on the ground, there is little wonder that this small gull is so appreciated by the farmer. The large numbers of Franklin

and Bonaparte gulls feeding throughout the summer months across the prairie provinces have a decided beneficial effect in the control of insect pests in many areas.

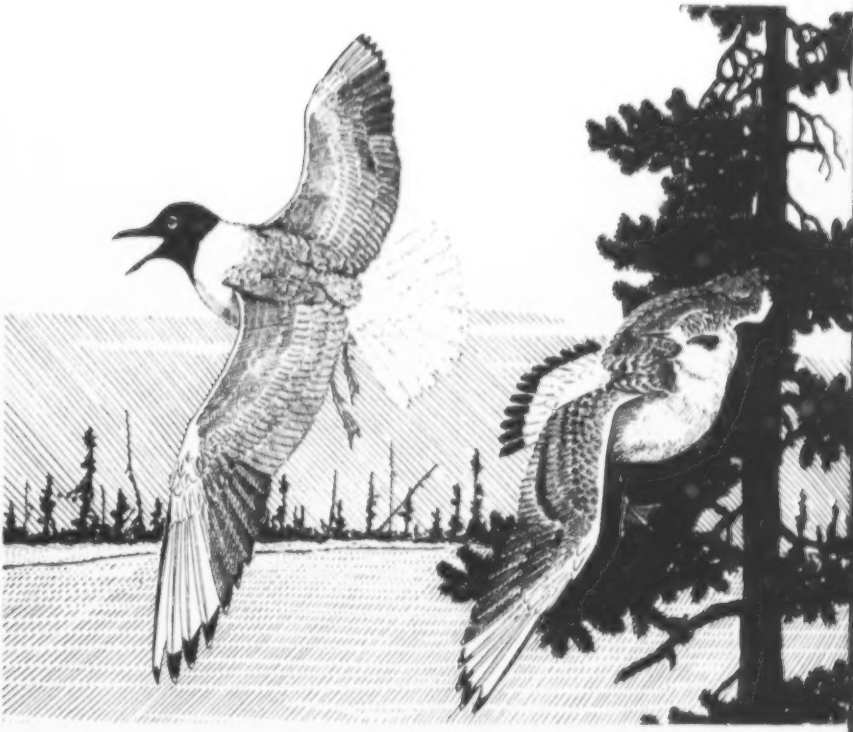
The Franklin gull has a very limited distribution in British Columbia. It is present in the Peace River District during the summer months, but we have no nesting records. In migration it has been seen only in the fall on very few occasions; locality records are Alta Lake and Okanagan Lake. This bird is abundant on the Great Plains from Alberta to Manitoba, breeding in colonies on the prairie sections only. Nests are constructed of dead rushes and grasses in marshes surrounding sloughs and lakes. It lays three eggs usually; these are brownish to green in colour and variously marked with dark-brown blotches, spots, and scrawls. Nesting takes place in May and June, and by October most of the birds are on their way south. A few birds winter in the Gulf of Mexico, but the main wintering-grounds are situated along the west coast of South America from northern Peru to Patagonia and southern Chile.

BONAPARTE GULL

The Bonaparte gull is similar to the Franklin gull in size, measuring about 14 inches long, and in the adult plumage it has the distinctive black head, bluish-greyish mantle, white tail and underparts characteristic of the Franklin gull. However, the wing-tips are predominantly white in the Bonaparte gull, grey and black in the Franklin, and this is the most reliable characteristic for field identification. In addition, the Bonaparte gull has lighter-coloured feet and a dark bill at all ages.

Young Bonapartes are generally paler in colour than young Franklin gulls; the black band is present at the end of the tail, but here again the most reliable characteristic is the difference in wing pattern, which may be easily seen by comparing the illustration with that of the Franklin gull.

The Bonaparte occurs throughout the Province during migration. It nests locally in the central and northern interior (Quesnel Lake, Atlin), and it often winters along the southern coast. The fall migration begins in August, and from that period until mid-October Bonaparte gulls are very numerous throughout the south-



Bonaparte gull.

(Adult.) (Juvenile.)

ern section of the Province, particularly along the coast. Many of the birds appearing first at the south end of Vancouver Island are still in adult summer plumage, with black heads contrasting strongly with those of immature birds. Later in the fall the black-headed birds either complete their moult and assume winter plumage or move farther south. At any rate the flocks of late birds are all white-headed, but young and old are still easily distinguished by the

presence or absence of the black tail-band, which denotes juvenility. Spring migration occurs in March, April, and May, at which time most of the birds have assumed full adult summer plumage.

The breeding range of this species is rather restricted; it is known to nest "only at a few localities in the timbered regions of the Northwest." It nests north to the limit of trees in that region and south to the aforementioned points in British Columbia.

Unlike most other gulls, the Bonaparte is a tree nester, constructing nests from 5 to 20 feet above the ground, usually in coniferous trees and usually near water. The eggs are said to resemble those of the Franklin gull in colour and markings but are of a smaller size. Two to four eggs make up the normal clutch.

The wintering-grounds extend from the coast of southern British Columbia south to Mexico and southward from the coast of South Carolina on the Atlantic side.

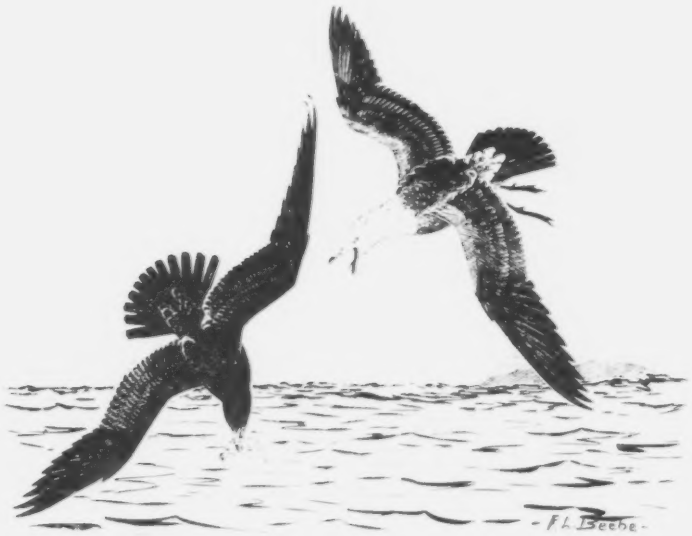
In the fall this gull has a habit of feeding on small herring and sand-lance pushed to the surface by feeding coho salmon. In fact, it is known as the "coho gull" in many sections of the coast. Many fishermen have learned to make use of this bird's behaviour in locating schools of fish.

In the illustration the adult Bonaparte gull is pictured on the left; the immature on the right. In winter the adult bird resembles the young one pictured here, but there is no black band on the tail.

HEERMAN GULL

The adult Heerman gull is without doubt the most easily recognized of the gulls occurring in British Columbia. In adult plumage the head is light in colour; the body, wings, and tail are dark sooty-brown above, lighter below, and with a suggestion of white edging on feather-tips at the scapulars and tail. The legs are black, and the bill is red—altogether a distinctive-appearing bird. The first-year young is very dark throughout and has a black bill, the bill becoming red and the plumage lighter in the second year. White margins on the feathers of the scapulars and tail are more pronounced in immature plumages.

This bird nests on islands along the Pacific coast of Mexico. Nests are merely shallow depressions in the soil in which two or



Heerman gull.

(Juvenile.) (Adult.)

three eggs are laid. Eggs vary in ground colour from pale ashy-grey to bluish-grey, and all are variously blotched and spotted with dark markings. Nesting begins in April, and by the early part of July some of the early nesters have already migrated northward as far as southern British Columbia, the northern limit of the species' normal range. There is one record for Alert Bay near the north end of Vancouver Island, but this gull is more plentiful from Chemainus southwards, with concentrations in the Gulf Islands, Victoria and Sooke areas. The birds remain around southern Vancouver Island until late October, disappearing southwards gradually as fall progresses.

The Heerman gull feeds largely on schools of small herring while in these waters, skimming along close to the surface and seizing its prey, very often while still in flight. On other occasions

when salmon or diving birds have "balled up" the herring, the Heerman gull joins with other species of gulls in the scramble for food, often immersing head and shoulders in short dives to secure the minnows. Sometimes this gull takes on jaeger-like behaviour and badgers the Bonaparte gull into disgorging its prey, which is then picked up. It has been observed parasitizing cormorants as well. This is accomplished by simply snatching the fish from the cormorant's bill as that bird surfaces. Locally the Heerman gull does not scavenge to the same extent as do other gulls. It remains offshore, roosting on kelp-beds, reefs, and rocky headlands at night and during daylight rest periods. When small fishes surface, it forages low over the water in a distinctive flight somewhat reminiscent of a slow-flying jaeger.

IVORY GULL

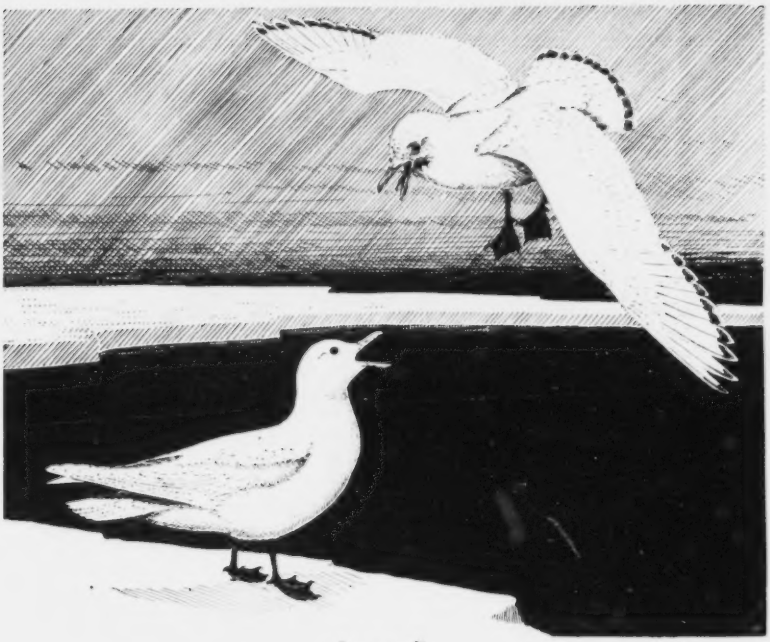
The ivory gull is a small white northern gull measuring almost 17 inches long. It is an extremely rare bird in British Columbia, having been recorded only twice—once in the Okanagan and once in the Cassiar District. The centre of distribution is in the eastern Arctic, and those birds taken here were obviously long-range stragglers.

The adult is the only completely white gull with black legs and is so much smaller than the glaucous gull that there is little chance of confusing the two. Immature ivory gulls are also white, but have a clouding of grey around the eyes and a few sharply defined black spots on the tips of the wing and tail feathers.

This bird winters as far south as the Maritimes on the Atlantic seaboard. The British Columbia specimens were taken before the turn of the century (1887 and 1889)—one in September, the other in November.

PACIFIC KITTIWAKE

In British Columbia the Pacific kittiwake is common in the northern waters, where immature birds occur in large numbers around the Queen Charlotte Islands during the summer months. There are records, however, south along the outside coast to the south end of Vancouver Island, and Munro and Cowan (1947)



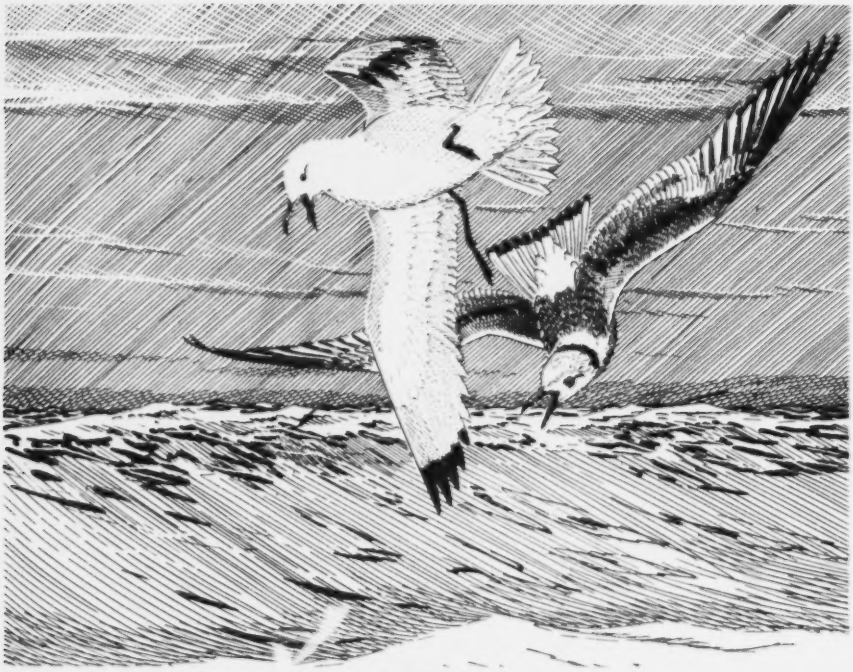
Ivory gull.

(Adult.) (Juvenile.)

record this species as a regular transient off the west coast of Vancouver Island, sometimes wintering along inshore waters.

The kittiwake is a small gull about 16 inches long, and is usually seen in large compact flocks, often at considerable height. Adults are white, with a slaty-coloured mantle and black wing-tips that are without the white sub-apical spots common to most gulls of herring-gull type coloration. The bill is clear yellow without markings, and the foot bears a greatly reduced hind toe.

The birds most commonly seen in our waters in summer are immature. They are white like the adults but show a black spot on the side of the face behind the eye and have a black bar on the



Pacific kittiwake.
(Adult.) (Juvenile.)

top side at the base of the neck, along the greater wing coverts and also across the tail-tip. These features combine to give this bird a distinctive and easily recognized appearance.

The Pacific kittiwake nests on the rocky shores of the Aleutian and Pribilof Islands and winters on the sea from Alaska south to Lower California. The nests are well constructed of grass and sod, usually situated on ledges of high cliffs. They are said to be deeply cupped and lined with fine dry grass. Two eggs, typically gull-like in shape and colour, are laid in June, and by September the young are ready to leave the colonies with their parents.

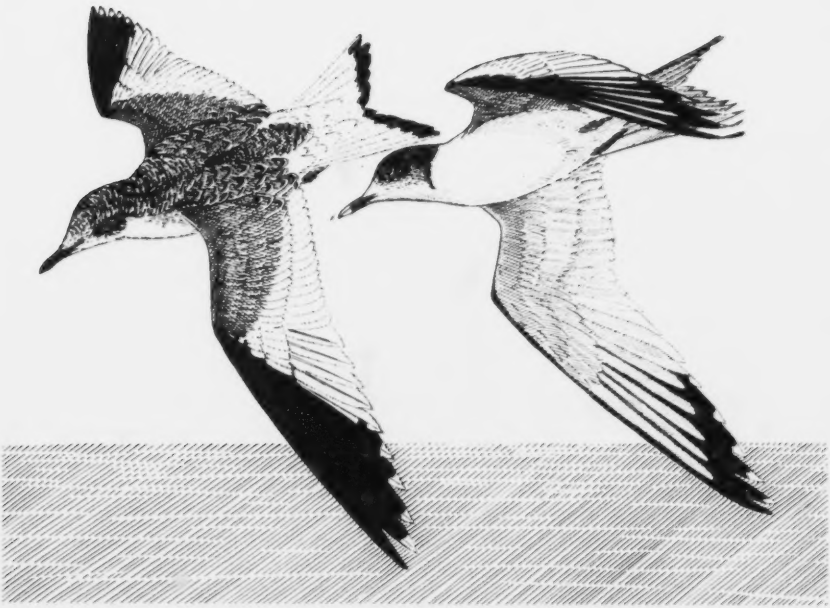
The kittiwake feeds in the manner of the terns, hovering in the air over its prey and dropping swiftly head foremost to secure the fish in a shallow dive. It feeds largely on small herring, sand-lance, and crustaceans, but is known to scavange as well.

Due to the pelagic or sea-loving nature of this species, it is seldom recorded by terrestrial-bird watchers, and consequently is regarded by many as a rare bird. Actually it occurs in large numbers offshore during the migratory periods. Spring migration takes place in April through June, the birds returning south in September and October. There are winter records for Discovery Island and Cadboro Bay, near Victoria, in December and January.

SABINE GULL

The adult Sabine gull in full breeding plumage is distinctly marked and easily recognized. The head is a slaty-grey colour, bordered at the neck by a narrow, black, clearly defined collar. The outer primaries are largely black, the trailing edge of the remainder of the wings white; thus the white triangle so formed contrasts sharply with the black of the outer primaries and greyish mantle. The tail is white and forked, the latter a distinctive feature, for it is found in no other gull (apart from the terns). The feet and bill are black, the latter tipped with yellow.

In winter plumage, which is assumed early in the fall, the dark plumage of the head is replaced largely with white, the dark collar being the last to go; the back of the head and neck often retain a clouded appearance in this plumage. The wing pattern is retained in all plumages, as is the forked tail; hence recognition is not difficult even during the migratory and winter periods. Young Sabine gulls in the first year and in the early part of the second year are similar to the adults in wing pattern, but they lack the distinct dark head plumage and have a black terminal band on the tail. In addition, the head and upper parts are dusky, and the feathers in those regions are edged in buff-coloured bands, giving a distinctive soft marbled effect. The Sabine gull measures about 13½ inches in length and is regarded as one of the most delicately marked of all the gulls.



Sabine gull.

(Juvenile.) (Adult.)

The breeding range extends along the Arctic coasts of both hemispheres. In North America it extends from Greenland westwards to northern Alaska and the Bering Sea. The birds migrate along both coast-lines and are infrequently seen close to shore. There are several records for the interior of the continent, however, which indicate that at least a small part of the migration passes along some of the central flyways. In British Columbia the Sabine gull is most often seen on southward migration. According to Bent (1921), the only known wintering-grounds seem to be along the coast of Peru.

Egg records from northern Alaska indicate that nesting takes place from late May through early July, and fall migration records

along the British Columbia coast indicate August (seven records) as the period of main movement for this species. There is also one record from Okanagan Landing in September and two from Sooke in October. The only spring migration records for British Columbia (two) were taken in June, but the egg dates and the fact that Nelson (Bent, 1921) found them numerous in the vicinity of St. Michael's Island during the month of May indicate a much earlier movement along this coast.

The Sabine gull lays two or three brown to olive-coloured eggs which are said to be "rarely heavily marked but are usually faintly and irregularly spotted." Nests are said to be situated around the shores of tundra ponds and Arctic shore-lines. Sometimes a few bits of grass are utilized as nest material, but it is said that this bird usually deposits its eggs in slight depressions on the muskeg and sometimes on the sand without benefit of cover or nesting material.

According to Hersey, the Sabine gull picks its food daintily from the water and spends much of its time probing the mud-flats, much as shorebirds do. He writes that while he was working the shores of the Bering Sea he often mistook them for plovers. Crustaceans, small fishes, sea-worms, and other forms of marine life are said to make up a large part of the diet.

At Victoria we have recorded Sabine gulls at Gonzales Point on three occasions in August. In each instance they were in company with Bonaparte gulls and were first noticed by the greater amount of black on the primaries and by their tern-like flight. Closer inspection revealed the forked tail (which is not too apparent at a distance) and the other characteristics mentioned above.

TERNS

The terns occurring in British Columbia are gull-like birds, smaller, more slender, and more delicately built than the gulls and with more slender sharply pointed bills, long tapering wings, and a very deeply forked tail. Three species occur in the Province—the *common*, the *Arctic*, and the *black*. All three are somewhat similar in structure, feeding behaviour, and flight characteristics. Adult common and Arctic terns are of the same approximate size

Common tern. Black tern. Arctic tern.

(about 15 inches long) and are largely white and grey with a black cap in summer plumage. The adult black tern in summer, however, is a dark slate-grey darkening to black on the head, neck, and underparts, and is a smaller bird (about 10 inches long). Thus the common and Arctic terns are difficult to separate in the field, while the black tern may be identified at a glance.

Common Tern

The full-plumaged common tern is distinguished from the Arctic tern mainly by the size of the feet and legs. Those of the Arctic tern are very small, about 0.65 of an inch in length; those of the common tern are not less than 0.80 of an inch, and are stouter. These features are impossible to see when the birds are in flight and, in fact, can be fully appreciated only with birds in the hand. However, the astute observer can often separate the two on the basis of leg length and associated behaviour. The common tern stands up higher on its legs than does the Arctic tern, and, as Taverner (1934) has pointed out, the latter appears to "hug the ground with its body as it walks, and has a mouse-like glide." When light conditions are right, one may sometimes discern the black tip on the common tern's otherwise red bill; the bill of the Arctic tern is red throughout. The Arctic tern is a little greyer on the breast and underparts than is the common tern, but this is a variable characteristic and even under ideal conditions is difficult to use for purposes of identification. Both common and Arctic terns occur along the British Columbia coast in migration. At a distance both appear to be white birds with black caps on the head. On closer inspection it will be seen that both have a pale-blue mantle, a greyish wash on the underparts, and edgings of grey on the long outer tail feathers. Their strong thrusting flight, their feeding behaviour, as well as their distinctive appearance (*see* illustration) make recognition easy even for the beginner. This bird will hover over a school of fish and plunge suddenly into the water, often submerging while seizing the prey. On other occasions the dive is made abruptly without hovering and sometimes from considerable height (30 to 40 feet). Almost invariably the bird is successful. When the terns appear along this coast in late August and September, they are often accompanied by jaegers, which rob them of much of their prey. Both terns and jaegers are good fliers, excelling in aerobatics, and the pursuit of tern by jaeger is often a spectacular display. Although capable of swift and purposeful flight, terns usually proceed along in a light and airy manner, especially when dallying around feeding areas.

In North America the common tern nests on a large, discontinuous range from the Arctic coast of the McKenzie eastward and south along the Atlantic coast to North Carolina. In the interior it nests across the Great Plains to south-eastern Alberta and north to Edmonton. A few birds breed in Bermuda, the Bahamas, Florida, and on islands off the Venezuelan coast. It also occurs in Europe. Here the winter range stretches along both shore-lines of South America, while European birds winter along the shore-lines of Africa.

Arctic Tern

The Arctic tern has a circumpolar breeding range, nesting as far north as it can find land. In North America it breeds south to Nantucket on the Atlantic side and south to northern British Columbia (Atlin) on the Pacific. Its wintering range is in the Antarctic Ocean, the Weddell Sea, and probably Ross's Sea (off Victoria Land, 76° 52′ S.). The great distances involved in this bird's migration from nesting-grounds in the Arctic to the wintering-grounds of the Antarctic is considered one of the marvels of the bird world (questioned by Murphy, 1936). Migration occurs spring and fall along both coast-lines, but on the Pacific the Arctic tern is most often seen in the fall. A large part of the migration is said to pass by this Province well out to sea, but both Arctic and common terns are known to migrate through the interior of British Columbia.

Black Tern

The black tern is a bird of the interior, nesting for the large part on lake-shores and marshes in the central part of the Province. It arrives in May, nests, rears its young, and is on the way south again sometimes as early as July. It winters in the Gulf of Mexico and south to northern South America.

The flying young of all three species differ in appearance from adults in summer plumage. The young of Arctic and common terns are practically identical in appearance and closely resemble the parents' winter plumage. Instead of a black cap a dark face patch suffuses the nape of the neck to form a dark band, while the bill is largely flesh coloured and black rather than red. First-year

black terns and winter adults also have similar plumage differing markedly from that worn in summer. The forehead is dirty white, as are the underparts and a band around the throat, while the dark-grey plumage of the back is replaced largely by brown plumage.

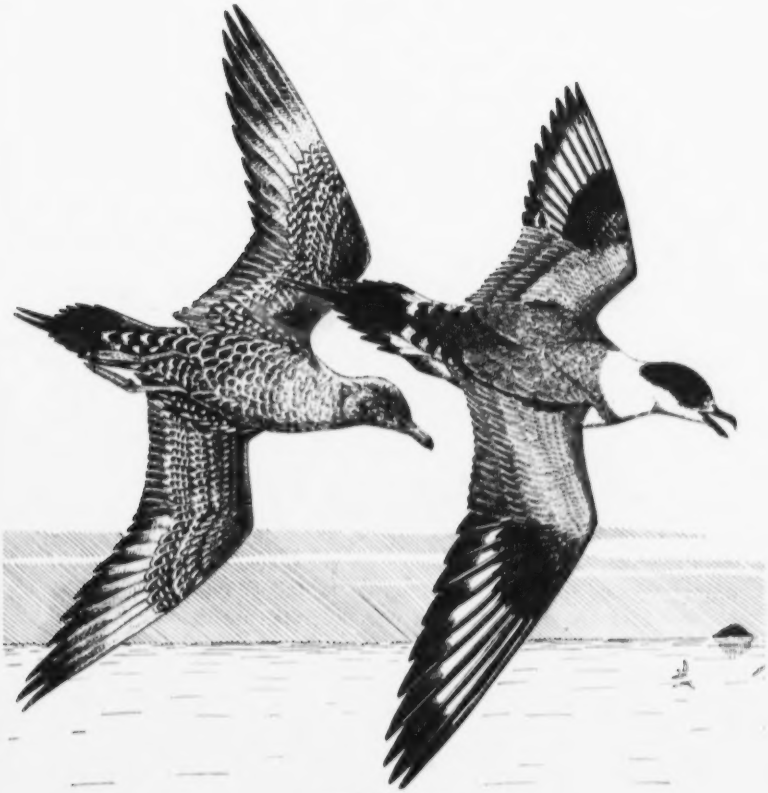
PARASITIC JAEGER

Jaegers are stream-lined birds superficially resembling hawks in behaviour and appearance, but with gull-like plumage and webbed feet. They are essentially birds of the sea and shore, where they associate with gulls and terns, preying upon those species by robbing them of the food they have taken. Three species of jaegers migrate along the coast of British Columbia; these are the parasitic, the pomarine, and the long-tailed.

The parasitic jaeger measures about 18 inches in total length and in adult plumage appears largely black and white at a distance. As with the other jaegers, the distinguishing field characteristics are protruding central tail feathers, white markings in the primaries, and peculiar hawk-like flight. Any bird showing these features and seen badgering the gulls along the coast in the autumn can be surely identified as a jaeger.

Two colour phases occur in adult birds—one light, one dark. In the above illustration a typical light-colour phase is shown with black cap, white side face sometimes tinged with yellow. The neck and underparts are largely white. Sexes are coloured much alike. The trailing bird here depicts juvenile plumage, uniformly dark, the feather ends edged in light buffs, browns, and white to give a distinctive barred appearance. Very often the central tail feathers do not extend beyond the main margin of the tail in these young birds. At close range, dark-phase adults show a similarity in colour pattern to light-phase individuals, but at a distance they resemble the juvenile plumage depicted here.

The parasitic jaeger nests on the tundra in the Arctic and sub-Arctic regions of both hemispheres, and it winters south of the Gulf of Florida and southern California along both coast-lines of South America. In the spring it moves northward to the nesting-grounds, but is seldom seen close to the British Columbia coast on this migration. The few records we have were taken in May. In fall



Parasitic jaeger.
(Juvenile.) (Adult.)

migration, however, parasitics move down the coast and are seen in numbers at various points from late August through to November, with late September and October the periods of greatest abundance.

Nesting is said to occur in June, when two blotched, brownish-coloured eggs are laid in a shallow depression on the ground. The

young hatch out and grow very quickly, migrating southward with their parents in the fall.

From its feeding behaviour, the parasitic jaeger received its name. This bird sometimes forages for itself, taking prey such as sandpipers, phalaropes, and small mammals. On the nesting-grounds it eats the eggs and young of other birds nesting in the area, and for these activities it may be classed as a predator. It is better known, however, for its behaviour in parasitizing gulls and terns, robbing them, through aerial pursuit, of the fish they have taken. When the feeding jaeger sees a tern or gull swallow a herring, it takes chase, singling out this victim and pursuing it relentlessly until the herring is disgorged. The jaeger then turns and deftly snatches the falling fish from the air and flies in to seek out another victim. The aerial gymnastics performed when jaegers are parasitizing terns are beautiful displays of flying skill, and although the jaeger usually wins, the tern's evasive action sometimes allows him to retain his dinner.

POMARINE JAEGER

The pomarine is the largest of the three jaegers occuring along the British Columbia coast-line. Like the others, it occurs only on migration, and is more often seen in the fall of the year en route south. Like the others also, it is a holarctic breeder, nesting for the large part in tundras within the arctic circle. The nest is a shallow unlined depression in which two or three blotched brownish-olive coloured eggs are laid. Bent (1921) records egg dates only in late May and June, and thus, allowing a three-week incubation period and a minimum of three weeks for the young to grow and leave the nest, we could expect to see the first south-bound migrants only in late August. However, we have records of breeding birds taken as far south as the Goose Islands in mid-July, indicating that early breeding takes place or perhaps that individuals, having lost their eggs or young, begin to move south earlier. At any rate, pomarine jaegers appear in small numbers on the pelagic waters west of the British Columbia coast-line in mid-July, increasing in numbers through August and September. For the most part, the pomarine remains well out at sea and is seldom recorded on

Pomarine jaeger.
(Juvenile.) (Adult.)

our inside waters; its numbers thin out in October. Little is known of the winter range, but it is thought that it probably lies in the southern hemisphere south to Peru. Small numbers are said to winter from southern California to the Galapagos as well. For spring migration we have only three authentic records—two in the month of May, off the mouth of the Fraser River, and one in June, from the Goose Islands banks. It is thought that the main spring migration moves over pelagic waters as well.

Though not as agile and aggressive as the parasitic and long-tailed jaegers in flight, the pomarine is nevertheless capable of robbing gulls of their prey and of capturing small birds and rodents on

the breeding-grounds. The flight is less rapid than that of its smaller relatives, but otherwise it behaves in much the same manner and is easily identified as a jaeger. The protruding tail feathers on this species are twisted, and blunt at the end, instead of sharply pointed, and this, coupled with larger size and slower wing beat, immediately identifies it as the pomarine.

Dark- and light-colour phases occur, with the typical black cap, white underparts, and white wing markings of the jaegers readily apparent in the latter (*see* lower figure). In the dark form (upper figure) the tail, the size, and the slower wing beat are also used in field identification.

LONG-TAILED JAEGER

The long-tailed jaeger in juvenile plumage (flying above) closely resembles the young parasitic, previously described. Moulting adults of these two species may also be confused in the field, but in typical full-plumaged adults (at rest, below) the long central tail feathers are distinctive, protruding 7 or 8 inches beyond the rest of the tail. The long-tailed jaeger has also a more clearly defined black cap, a whiter-appearing breast, and it is a smaller, more slender bird than is the parasitic. Differences occur also in the bill, colour of the legs, and in colour of the primary feather shafts, but these, as a rule, are difficult to see in the field. In adult plumage, long-tailed jaegers occur in a light-colour phase only, differing from both the parasitic and pomarine jaegers in this respect. Otherwise this bird closely resembles the parasitic jaeger; it has the same hawk-like flight and hooked bill; it is predatory on the breeding-grounds and parasitic on gulls and terns at other times.

The speed of the long-tailed jaeger in flight is said to be swifter than that of the falcons, and certainly their manœuvrability in the air is something to be marvelled at.

This species nests along Arctic coast-lines, laying two brown to greenish-coloured speckled eggs which are almost indistinguishable from those of the preceding species. "The nest is usually placed on some slight elevation on the flat or rolling open tundra, where a few pieces of dry grass, bits of mosses or leaves are scraped together in a slight hollow. The birds are very courageous in the

Long-tailed jaeger.
(Juvenile.) (Adult.)

defense of the nest, swooping down at the intruder or flying straight at his face and turning or rising just in time to miss striking him. After the young are hatched, however, they become more cautious and seldom approach within gunshot, lest they betray the presence of young, which are cleverly hidden in the grass." (Bent, 1921.)

Of this bird's range, Bent writes that winter records in America are very scarce, and, in fact, we have none at all for British Columbia. The known wintering areas in this hemisphere are in Chile and Argentina. According to the same authority, the long-tailed jaeger winters in the eastern hemisphere south to Gibraltar and the Mediterranean and on the Asiatic side to the Kurile Islands. In fall migration we have a few records from the interior, from the west coast of Vancouver Island, and from the Goose Islands.

SKUA

Skuas are large, dark, gull-like birds which sometimes range northwards to British Columbia from their usual range in the southern hemisphere. In behaviour they are like the jaegers, badgering gulls and robbing them of their prey. They also scavenge over the open sea, feeding on whatever nature may provide. On their breeding-grounds they are said to be predaceous, robbing nests of eggs and young, and taking adult birds and mammals as well. In defence of their young, the skua has a reputation for fearlessness and aggressiveness, attacking viciously any intruder. According to Robert Cushman Murphy in his Oceanic Birds of South America, the skua presents quite a problem to the sheep-raisers on the Falkland Islands, where it attacks any dog or man approaching the nest and often strikes with stunning force.

Along the British Columbia coast, skuas have been recorded only seven times, and, as far as we can ascertain, only four specimen records were secured. Nine specimens have been taken off the Washington coast, and some of these may have been in the vicinity of Vancouver Island. Consequently, on paper, the skua is a rare bird here. In actuality, however, it is likely that these birds occur regularly on our open waters during the summer months and that only the lack of observers accounts for the small number of records.

Several subspecies of skua have been described, but in general appearance and behaviour they are all quite similar. The skua is generally dark in appearance and hawk-like in flight, with scimitar-shaped wings rounded at the end, and with a squarish, up-tilted tail. The dark wings are marked with white at the base of the pri-

Skua.

maries, a feature which shows up at a distance, and which, when coupled with the hawk-like flight, immediately identifies the bird. The body colour of the two specimens I have taken was simply a

dark brown, but considerable variation in colour is said to occur even within the same subspecies.

In British Columbia you are most likely to see a skua between the months of June and September and at a considerable distance from the land. Four of our records came off the Goose Island banks, some 20 miles offshore.

On the Atlantic seaboard there is a race of northern skua which nests in Iceland, Greenland, and other northern islands. It remains in northern waters for the large part, but some individuals winter south as far as New York; there are no northern-breeding skuas on the Pacific.

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